In the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A processing device comprising:

a processing module capable of multitasking multiple tasks;

one or more associated circuits~~, which may be selectively enabled and disabled responsive to a control signal,~~ coupled to said processing module for supporting the processing module, each of said associated circuits having power circuitry for either enabling or disabling the associated circuit responsive to a power input, at least one of the associated circuits being used by more than one task;

a ~~memory~~ task attribute register storing ~~a control word~~ task attribute bits for enabling and disabling the associated circuits, wherein each task has ~~an associated control word~~ task attribute bits associated therewith which ~~is~~ are stored in the ~~memory~~ task attribute register while the task is being executed by the processing module; and

a logical OR gate having inputs receiving a bit of each the task attribute register corresponding to the at least one associated circuit used by more than one task and an output connected to the power input of the associated circuit used by more than one task to enable the associated circuit used by more than one task when task using the associated circuit is being executed by the processing module and to disable the associated circuit used by more than one task when no task using the associated circuit is being executed by the processing module.

Claims 2 to 5. (Cancelled)

6. (Original) The processing device of claim 1 wherein said processing module is a microprocessor module.

7. (Original) The processing device of claim 1 wherein said processing module is a digital signal processor.

8. (Original) The processing device of claim 1 wherein at least one of said associated circuits is a caching circuit.

9. (Original) The processing device of claim 1 wherein one of said associated circuits is a coprocessor.

10. (Original) The processing device of claim 1 wherein said processing module comprises a first processing module, and further comprising one or more additional processing modules.

11. (Currently Amended) A method of operating a processing device including a processing module capable of multitasking multiple tasks coupled to one or more associated circuits, at least one of the associated circuits being used by more than one task, comprising the steps of:

identifying each of a plurality of current ~~task~~ tasks; and

storing ~~a control word~~ task attribute bits associated with ~~said current~~ currently executing task in a ~~memory~~ task attribute register; ~~and~~

selectively enabling or disabling power to the associated circuits during execution of said current task responsive to said ~~control word~~ task attribute bits stored in said task attribute register; and

logical ORing task attribute bits of said more than one task corresponding to said at least one associated circuit used by more than one task to enable said associated circuit used by more than

one task when any task using said associated circuit is being executed by the processing module and to disable said associated circuit when no task using said associated circuit is being executed by the processing module.

Claims 12 to 15. (Canceled)

16. (Original) The method of claim 11 wherein said processing module is a microprocessor module.

17. (Original) The method of claim 11 wherein said processing module is a digital signal processor.

18. (Original) The method of claim 11 wherein at least one of said associated circuits is a caching circuit.

19. (Original) The method of claim 11 wherein one of said associated circuits is a coprocessor.

20. (Original) The method of claim 11 wherein said processing module comprises a first processing module, and further comprising one or more additional processing modules.

Claims 21 and 22. (Canceled)